CCDPUL STATUS 27sep05 _{JSF}

- Begin with a list of setup cuts; want to check performance of ttccd_cut (imported from Bipul's '97 analysis)

  – pscut02 (beam cuts);

  – kcuts (kinematics);

  – -PV_noTG

    (inverted PV cut, no explicit TG PV)

LIST of SETUP CUTS

**kinematics, utc
quality, pion ID**

COS3D
ZFRF
ZUTOUT
RSDEDX
UTCQUAL
RNGMOM

**Reversed PV cut
(target not included in PV)**

-PV_noTG

PSCUT_02

B4DEDX
BWTRS
B4TRS
B4ETCON
B4CCD
CPITRS
CPITAIL
CKTRS
CKTAIL
TGQUALT
TGZFOOL
EPITG
EPIMAXK
TARGF
DTGTTP
RTDIF
DRP
PHIVTX
B4EKZ
TGER
OPSVETO
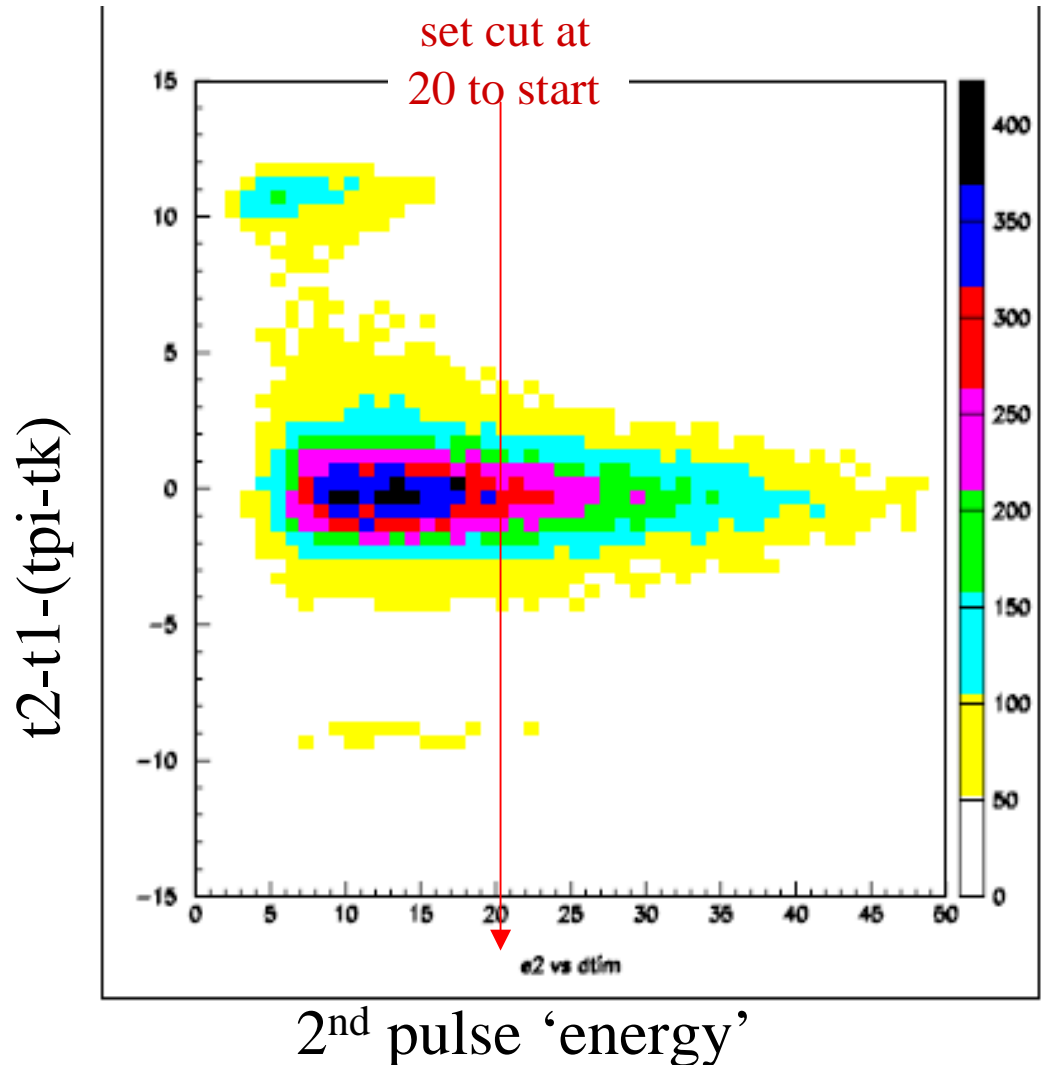TGEDGE
TIMCON
TGTCON
TIC
RV
UPV

Some target cuts

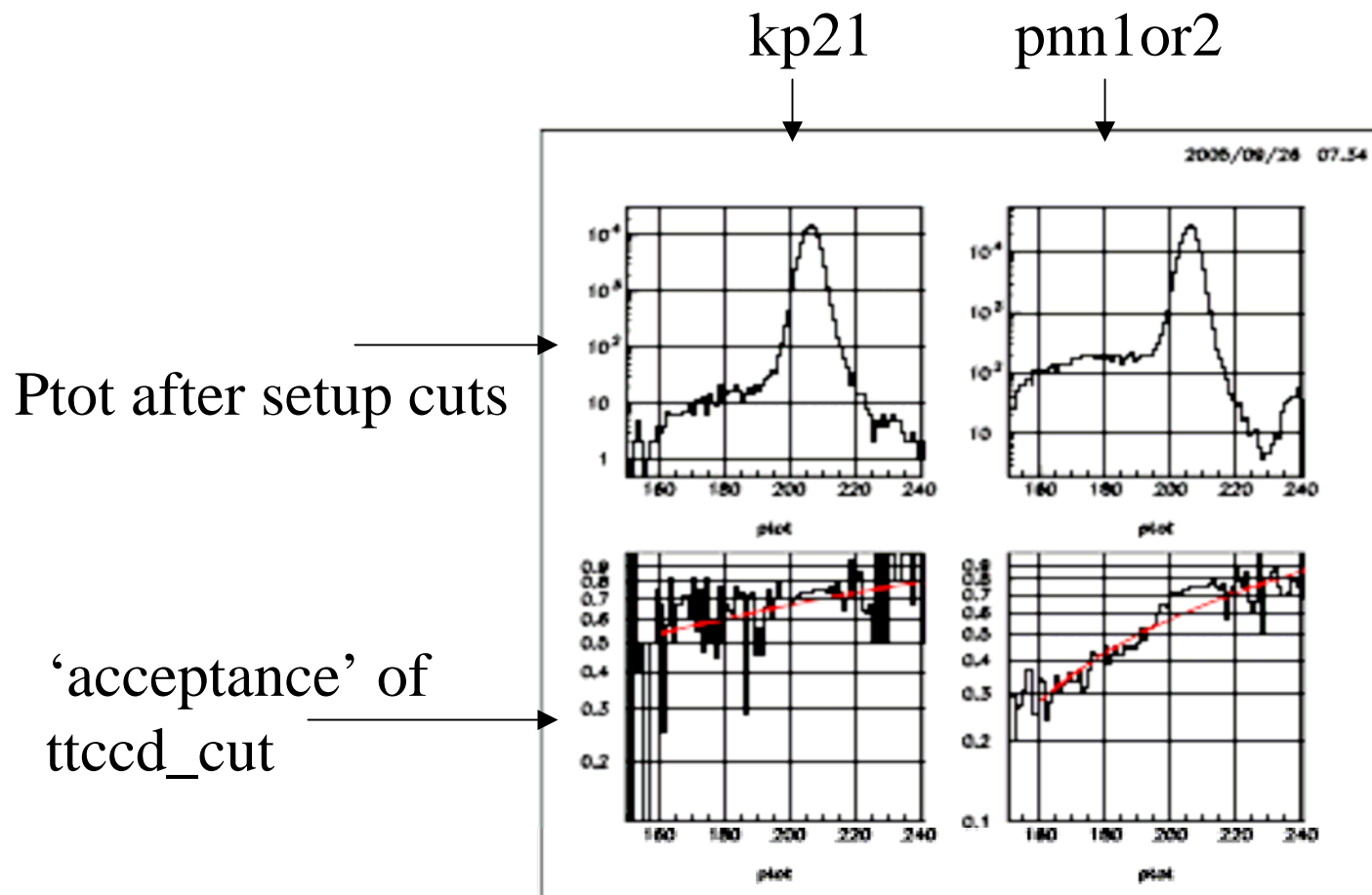EIC
DELC
KIC
TGGEO
TGQUALT0
PIGAP
TGB4

DELC6

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Learned so far

2nd pulse 'energy' is not in MeV, so applying '97 cut at '1.5' is near threshold

(almost certainly difference caused by scale factor in 2002 calibrations)

set cut at 20 to start

t2-t1-(tpi-tk)

e2 vs dtim

2nd pulse 'energy'

kp21   pnn1or2

Ptot after setup cuts

'acceptance' of
ttccd_cut

acceptance at kp2 peak 0.73; at km2 peak 0.73

acceptance in pnn2 box varies with ptot: ~0.4 at 180 MeV/c

=> A*R ~ 1.8 @ 180 MeV/c

- There are some logical problems that it might be nice to understand:
  - In 2002 data (and earlier data, as well), some of the 2nd pulses found by fitter are already included in npi_tg, npiop_tg, npvtg arrays
  - This means that there will be some events cut by some setup cuts
  - ~OK, if we're only concerned with additional rejection of ttccd_cut; but not OK if we want to understand 'efficiency' of the fitter

- For example: toss out ccdpul cuts, and use:

```
do j=1,npi_tg
do i=1,nk_tg
if(elpi_tg(j).eq.elk_tg(i))then
if(epi_tg(j).gt.1.5)return
endif
enddo
enddo
```

- Acceptance ~kp2 peak ~0.93 (no loss till delco ~15ns)

- Acceptance ptot~160 MeV/c ~0.90
  – and see no dependence on ptot